



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/526,068

02/28/2005

Yasuo Ohsawa

Q86524

6620

23373 7590 10/09/2007  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/526,068	OHSAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Steven D. Maki	1733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>022805</u> . | 6) <input type="checkbox"/> Other: ____  |

1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) **Claims 1-2, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Takasugi et al (US 5,358,021).**

Takasugi et al discloses a pneumatic tire with tread having an asymmetric tread pattern. As can be seen in figure 1, tire B comprises four circumferential grooves, three circumferential ribs 3, 4 and 5 and two rows of blocks 6, 7. Takasugi et al teaches that the ribs provide higher rigidity for that side for excellent maneuvering stability. The ribs 4 and 5 contain lateral grooves which are shown as being inclined at angle greater than 45 degrees with respect to the circumferential direction. Shoulder block row 7 comprises lateral grooves 2 and rib 3 comprises lateral grooves. Since a rib inherently has a larger contact area than a row of blocks, there is sufficient evidence to conclude that the volume of grooves in the rib 3 is less than the volume of lateral grooves in the block row 7. The claimed tire is anticipated by Takasugi et al's tire.

4) **Claims 1-3, 5, 8-12 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al.**

Takasugi et al, discussed above, is considered to anticipate claim 1. In any event: It would have been obvious to one of ordinary skill in the art to provide the shoulders of Takasugi et al's tire such that the volume of lateral grooves in the shoulder rib 3 is smaller than the volume of lateral grooves in the block row 7 since Takasugi et al teaches that the lateral grooves provide drainage but land 3 is formed into a rib so that the rigidity of that shoulder is higher for excellent maneuvering stability. Furthermore, it would have been obvious to incline the lateral grooves in the ribs 4, 5 at an angle of greater than 45 degrees with respect to the circumferential direction since Takasugi et al shows steeply inclining the lateral grooves with respect to the circumferential direction. Takasugi et al teaches mounting the side with the smaller lateral groove volume so as to face the outside of the vehicle. However, the description of "shoulder land part row corresponding to an axially inner side" (emphasis added) relates to intended use and fails to require tire structure not disclosed by Takasugi et al since a *tire can be mounted so that either side becomes an inner side*.

As to claims 3, 5 and 8, it would have been obvious to one of ordinary skill in the art to form a fine circumferential groove in the shoulder of Takasugi et al's tire since it is taken as well known / conventional per se in the tire art to form such a fine circumferential groove in a shoulder of a tire to prevent wear.

As to claims 9-12, it would have been obvious to one of ordinary skill in the art to form both end opening sipes inclined with respect to the circumferential direction in Takasugi et al's ribs since it is taken as well known / conventional per se to form such sipes in ribs in a tire tread to prevent wear.

As to claim 15, note the circumferential grooves of the asymmetric tread disclosed by Takasugi et al and Takasugi et al's teachings as to rigidity.

As to claims 16-18, it would have been obvious to provide Takasugi et al's blocks with the claimed shape / height since it is taken as well known / conventional per se in the tread art to shape blocks (e.g chamfer) to reduce wear.

As to claims 19 and 22, note Takasugi et al's tread pattern and discussion regarding rigidity.

As to claims 20 and 21, changing lateral groove depth to affect water drainage and use of alternating direction lateral grooves is taken as well known / conventional per se.

As to claims 23 and 24, the contact on one side of Takasugi et al's tread is different than that on the other side.

**5) Claims 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al as applied above and further in view of Japan 918 (JP 08-118918) and Japan 107 (JP 62-059107).**

As to claims 4, 6 and 7, it would have been obvious to one of ordinary skill in the art to form the claimed holes in the shoulder of Takasugi et al's tread since Japan 918 and Japan 107 suggest forming holes in the shoulders of a tire tread to reduce wear.

**6) Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al as applied above and further in view of German 159 (DE 3738159).**

Art Unit: 1733

As to claims 13 and 14, it would have been obvious to form the claimed ellipsoidal recesses since German 159 suggest forming ellipsoidal sipes 9 in ribs of a tread to provide uniform wear and obtain good grip.

**7) Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al as applied above and further in view of Landers et al (US 5,176,76)**

As to claim 25, it would have been obvious to mount Takasugi et al's directional tread pattern tire backwards since Landers et al teaches mounting a directional tread pattern tread backwards when improved snow performance is desired.

Remarks

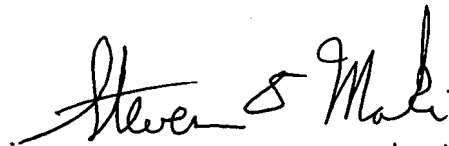
- 8) The remaining references are of interest
- 9) No claim is allowed.
- 10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki  
October 1, 2007

  
**STEVEN D. MAKI** 10-1-07  
**PRIMARY EXAMINER**